

Atty Docket No. PC27820A
 Appl. No. 10/815,589
 Reply to Office action of February 12, 2007

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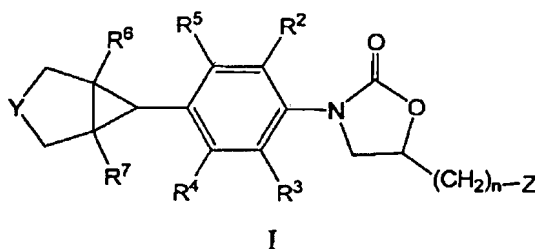
Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the above-identified application.

Listing of Claims:

Claims 1-38 (cancelled)

39 (new). A compound of formula I:



or a pharmaceutically acceptable salts thereof;

wherein Y is $-\text{SO}_m-$, $-\text{O}-$, or $-\text{N}(\text{R}^8)-$;

Z is $\text{C}(=\text{Q})\text{R}^1$, $-\text{NHC}(=\text{Q})\text{R}^1$, $-\text{C}(=\text{Q})\text{NHR}^1$, $-\text{NHC}(=\text{NCN})\text{R}^1$, $-\text{NHC}(=\text{NNO}_2)\text{R}^1$, $-\text{SO}_2\text{R}^1$, or $-\text{NH}_2$;

Q is oxygen or sulfur atom;

R^1 -H, OH, $-\text{NH}_2$, $-\text{NHC}_{1-4}\text{alkyl}$, $-\text{C}_{1-4}\text{alkyl}$, $-\text{C}_{2-4}\text{alkenyl}$, $-(\text{CH}_2)_p\text{C}(=\text{O})\text{C}_{1-4}\text{alkyl}$, $-\text{OC}_{1-4}\text{alkyl}$, $-\text{SC}_{1-4}\text{alkyl}$, $-(\text{CH}_2)_p\text{C}_{3-6}\text{cycloalkyl}$, $-\text{CH}=\text{CH-aryl}$, or $\text{CH}_2\text{C}(=\text{O})\text{-aryl}$;

R^2 and R^3 are independently -H, or -F;

R^4 and R^5 are independently -H, -Cl, -F, $-\text{CH}_3$, $-\text{NH}_2$, or $-\text{OH}$;

R^6 and R^7 are independently -H, or $-\text{C}_{1-4}\text{alkyl}$;

R^8 is independently -H, -OH, -CN, $-\text{NR}^9\text{R}^{10}$, $-\text{C}_{1-4}\text{alkyl}$, $-\text{C}_{3-6}\text{cycloalkyl}$, $-\text{C}_{1-4}\text{heteroalkyl}$, -aryl, $-\text{C}_{1-4}\text{alkylNR}^9\text{R}^{10}$, $-(\text{CH}_2)_p\text{C}(=\text{O})\text{C}_{1-4}\text{alkyl}$, $-(\text{CH}_2)_p\text{C}(=\text{O})\text{C}_{3-6}\text{cycloalkyl}$, $-(\text{CH}_2)_p\text{C}(=\text{O})\text{C}_{1-4}\text{heteroalkyl}$, $-\text{C}(=\text{O})\text{H}$, $-(\text{CH}_2)_p\text{C}(=\text{O})\text{OR}^9$, $-\text{C}(=\text{O})(\text{CH}_2)_p\text{OR}^9$, $-(\text{CH}_2)_p\text{C}(=\text{O})\text{C}_{1-4}\text{alkylOR}^9$, $-(\text{CH}_2)_p\text{C}(=\text{O})(\text{CH}_2)_p\text{NR}^9\text{R}^{10}$, $-(\text{CH}_2)_p\text{C}(=\text{O})\text{NR}^9\text{OR}^{10}$, $-(\text{CH}_2)_p\text{CH}(=\text{NOC}_{1-4}\text{alkyl})$, $-(\text{CH}_2)_p\text{C}(=\text{NOC}_{1-4}\text{alkyl})\text{C}_{1-4}\text{alkyl}$, $-(\text{CH}_2)_p\text{-SO}_2\text{-C}_{1-4}\text{alkyl}$, $-(\text{CH}_2)_p\text{-SO}_2\text{-NR}^9\text{R}^{10}$, CONHR^9 , or $-\text{C}(=\text{R}^{11})(\text{NR}^{12}\text{R}^{12})$;

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each R^9 and R^{10} are independently -H, -C₁₋₄alkyl, -C₃₋₆cycloalkyl, -aryl, -C(=O)C₁₋₄alkyl, -C(=O)NHC₁₋₄alkyl, -C(=O)aryl, -SO₂C₁₋₄alkyl, or -SO₂NH₂;

R^{11} is =NH, =NCN, or =CHNO₂;

each R^{12} is independently H, or C₁₋₃alkyl;

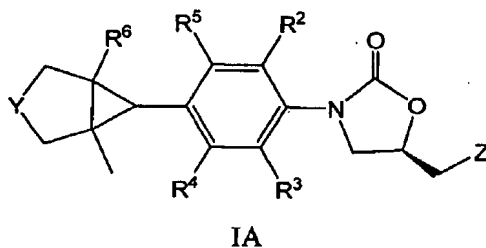
each m is independently an integer equal to 0, 1, or 2;

each n is independently an integer equal to 0, or 1;

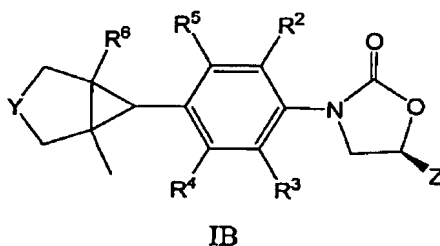
each p is an integer equal to 0, 1, or 2; and

at each occurrence, C₁₋₄alkyl, or C₃₋₆cycloalkyl is optionally substituted by one to three halo, hydroxyl, -CN, OC₁₋₂alkyl or aryl.

40 (new). A compound according to claim 39 which is a compound of formula IA



wherein Z is -NHC(=Q)R¹, or a compound of formula IB



wherein Z is -C(=O)NH₂.

41 (new). A compound of claim 40 wherein Q is oxygen atom.

42 (new). A compound of claim 40 wherein R¹ is C₁₋₄alkyl, optionally substituted with one, two or three fluoro or chloro.

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- 43 (new). A compound of claim 40, wherein R^1 is C_{1-4} alkyl or C_{3-6} cycloalkyl, optionally substituted with $-OH$, or CN .
- 44 (new). A compound of claim 40 wherein R^1 is $-CH_3$, $-CHF_2$, $-CF_3$, $-CHCl_2$, $-CH_2CF_3$, $-CH_2CH_3$, $-CH_2CHF_2$, or $-CH_2CH_2F$.
- 45 (new). A compound of 40 wherein R^2 and R^3 are $-H$.
- 46 (new). A compound of claim 40, wherein R^4 and R^5 are independently $-H$ or $-F$.
- 47 (new). The compound of claim 40, wherein R^6 and R^7 are $-H$.
- 48 (new). A compound of claim 40 wherein Y is $-N(R^8)-$.
- 49 (new). A compound of claim 48 wherein R^8 is $-C(=O)(CH_2)_pOR^9$.
- 50 (new). A compound of claim 49 wherein R^9 is H or C_{1-4} alkyl.
- 51 (new). A compound of claim 48 wherein R^8 is $-C(=O)C_{1-4}$ alkyl, wherein the alkyl is optionally substituted with one, two, or three OH , F , or CN .
- 52 (new). A compound of claim 48 wherein R^8 is $-(CH_2)_pC(=O)C_{3-6}$ cycloalkyl wherein the alkyl is optionally substituted with one, two, or three OH , F , or CN .
- 53 (new). A compound of claim 48 wherein R^8 is $-(CH_2)_pC(=O)(CH_2)_pNR^9R^{10}$.
- 54 (new). A compound of claim 53 wherein R^9 and R^{10} are independently H , C_{1-4} alkyl, or $-C(=O)C_{1-4}$ alkyl.

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55 (new). A compound of claim 48 wherein R^8 is $-C(=O)H$, $-C(=O)CH_2OH$, $-C(=O)CH(OH)CH_2OH$, $-C(=O)het^1$, or $-C(=O)(CH_2)het^2$.

56 (new) A compound of claim 48 wherein R^8 is $(R^{11}=)C-NR^{12}R^{12}$, wherein R^{11} is $-NH$, $-NCN$, or $-CHNO_2$; and each R^{12} is independently H, or $C_{1-3}alkyl$.

57 (new). A compound of claim 40 wherein Y is $-S-$, $-SO-$, $-SO_2-$, or $-O-$.

58 (new). A compound of claim 39 which is

- (1) N-[[[(5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]ace- tamide,
- (2) N-[[[(5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.- 0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (3) N-[[[(5S)-3-{4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]-3-fluorophenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (4) N-[[[(5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxabicyclo[3.1.0]hex-6-yl]-3-oxo-1,- 3-oxazolidin-5-yl)methyl]acetamide,
- (5) N-[[[(5S)-3-{3-fluoro-4-[exo-(1R,5S-)-3-glycoloyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-y- l)methyl]acetamide,
- (6) 2,2-difluoro-N-[[[(5S)-3-{3-fluoro-4-[exo-(1R,5S)-3- -glycoloyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)m- ethyl]ethanethioamide,
- (7) methyl exo-(1R,5S)-6-(4-{(5S)-5-[(acetylamino)m- ethyl]-2-oxo-1,3-oxazolidin-3-yl}-2-fluorophenyl)-3-azabicyclo[3.1.0]hexan- e-3-carboxylate,
- (8) N-[[[(5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-formyl-3-azabic- yclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (9) N-[[[(5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-((2S)-2,3-dihydroxypropanoyl)-3- -azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetam- ide,
- (10) exo-(1R,5S)-6-(4-{(5S)-5-[(acetylamino)methyl]-2-oxo-1,3-oxazoli- din-3-yl}-2-fluorophenyl)-3-azabicyclo[3.1.0]hexane-3-carboxamide,

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- (26) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-glycoloyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (27) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-methoxyacetyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (28) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-((2S)-2,3-dihydroxypropanoyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (29) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(2-(S)-hydroxypropanoyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (30) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-cyclopropanecarbonyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (31) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(1-hydroxy-cyclopropanecarbonyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (32) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(2-hydroxy-2-methylpropanoyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (33) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(3,3,3-trifluoro-2-(S)-hydroxypropanoyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (34) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(difluoroacetyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (35) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-aminoacetyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (36) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-acetylaminoacetyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (37) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(2-fluoroethyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (38) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(2-hydroxyethyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (39) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-(2-cyanoethyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,
- (40) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-dimethylamino-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide,

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- (41) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]-phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (42) N-(((5S)-3-{4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]-3-fluorophenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (43) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]-phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclopropanecarboxamide,
- (44) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclopropanecarboxamide,
- (45) 2,2-difluoro-N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (46) 2,2-difluoro-N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (47) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclobutanecarboxamide,
- (48) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclobutanecarboxamide,
- (49) N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (50) N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (51) 2,2-difluoro-N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,
- (52) N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclopropanecarboxamide,
- (53) N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclopropanecarboxamide,
- (54) exo-(1R,5S)-6-(4-(((5S)-5-[(propanoylamino)methyl]-2-oxo-1,3-oxazolidin-3-yl)-2,6-difluorophenyl)-3-azabicyclo[3.1.0]hexane-3-carboxamide,
- (55) N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3-glycoloyl-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanamide,

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- (56) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]-phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)-2-hydroxyacetamide,
- (57) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)-2-hydroxyacetamide,
- (58) 2-cyano-N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide,
- (59) 2-cyano-N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide,
- (60) 2-cyano-N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3-oxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide,
- (61) 2-cyano-N-(((5S)-3-{3,5-difluoro-4-[exo-(1R,5S)-3,3-dioxido-3-thiabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide,
- (62) N-(((5S)-3-(4-{exo-(1R,5S)-3-[amino(imino)methyl]-3-azabicyclo[3.1.0]hex-6-yl]-3-fluorophenyl)-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide,
- (63) exo-(1R,5S)-N'-cyano-6-(4-{(5S)-5-[(acetylamino)methyl]-2-oxo-1,3-oxazolidin-3-yl}-2-fluorophenyl)-N-methyl-3-azabicyclo[3.1.0]hexane-3-carboximide,
- (64) exo-(1R,5S)-N'-cyano-6-(4-{(5S)-5-[(acetylamino)methyl]-2-oxo-1,3-oxazolidin-3-yl}-2-fluorophenyl)-3-azabicyclo[3.1.0]hexane-3-carboximide, or
- (65) N-(((5S)-3-{3-fluoro-4-[exo-(1R,5S)-3-((E)-1-{methylamino}-2-nitrovinyl)-3-azabicyclo[3.1.0]hex-6-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide:

59 (new). A method for treating bacterial infections comprising administering to a mammal being treated a pharmaceutically effective amount of the compound of claim 39.

60 (new). The method of claim 59 wherein the compound is administered parenterally, topically, rectally, or intranasally.

61 (new). The method of claim 59 wherein the compound is administered orally.

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62 (new). The method of claim 59 wherein parenteral administration is subcutaneous, intravenous, intramuscular, intradermal, intrathecal, intraocular, intraventricular injection.

63 (new). The method of claim 59 wherein said compound is administered in an amount of from about 0.1 to about 100 mg/kg of body weight/day.

64 (new). The method of claim 59 wherein said compound is administered in an amount of from about 1 to about 50 mg/kg of body weight/day.

65 (new). The method of claim 59 wherein said infection is skin infection.

66 (new). The method of claim 59 wherein the infection is eye infection.

67 (new). The method of claim 59 wherein said mammal is human.

68 (new). The method of claim 59 wherein said mammal is an animal.

69 (new). A pharmaceutical composition comprising a compound of claim 39 and a pharmaceutically acceptable carrier.